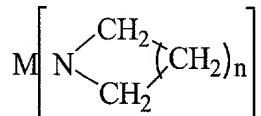
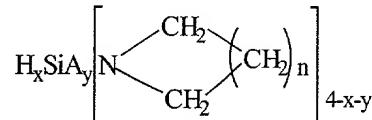


ABSTRACT OF THE DISCLOSURE

A CVD Method of forming gate dielectric thin films on a substrate using metalloamide



compounds of the formula $M(\text{NR}^1\text{R}^2)_x$, or compounds of the formula $H_x\text{SiA}_y(\text{NR}^1\text{R}^2)_{4-x-y}$, wherein M is Zr, Hf, Y, La, Lanthanide series elements, Ta, Ti, or Al; N is nitrogen; each of R^1 and R^2 is same or different and is independently selected from H, aryl, perfluoroaryl, $\text{C}_1\text{-C}_8$ alkyl, $\text{C}_1\text{-C}_8$ perfluoroalkyl, alkylsilyl; and x is the oxidation state on metal M; and an aminosilane compound of the formula



wherein H is hydrogen; x is from 0 to 3; Si is silicon; A is a halogen; Y is from 0 to 3; N is nitrogen; each of R^1 and R^2 is same or different and is independently selected from the group consisting of H, aryl, perfluoroaryl, $\text{C}_1\text{-C}_8$ alkyl, and $\text{C}_1\text{-C}_8$ perfluoroalkyl; and n is from 1-6. By comparison with the standard SiO_2 gate dielectric materials, these gate dielectric materials provide low levels of carbon and halide impurity.